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GARY R. HERBERT
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

July 22, 2009

Outgoing C0150019 #3273

Kenneth S. Fleck, Manager of Geology and Environmental Affairs Energy West Mining Company P.O. Box 310 Huntington, Utah 84528

Subject: Approval of Phase II and III Bond Release, Task ID # 3273, PacifiCorp,

Cottonwood/Wilberg Mine, C/015/0019

Dear: Mr. Fleck:

The Division has processed your application for Phase II and III bond release at the Cottonwood/Wilberg Mine and bond release is hereby approved. As PacifiCorp has not requested a reduction in the bond, the bond remains at \$3,252,000.00. This Phase II and III bond release applies to the reclaimed 13.81 acres of the Cottonwood/Wilberg Old Waste Rock Site in Township 17 South, Range 7 East, Section 34, NE1/4 SE1/4 and Section 35, E1/2 SW1/4. The effective date of this release is July 22, 2009.

A copy of the Division's Decision Document, which discusses the findings that support the bond release, is enclosed. The Office of Surface Mining and the Bureau of Land Management have concurred with this bond release.

Thank you for your help during this process. If you have any questions, please call Jim Smith at 801-538-5262 or Daron Haddock at 801-538-5325.

Sincerely,

John R. Baza

Director

DRH/sqs

Enclosure (Decision Document)

cc: Travelers Casualty & Surety Company of America

OSM

Price Field Office

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Utah Coal Regulatory Program

Cottonwood/Wilberg Mine
Old Waste Rock Site
Phase II and III Bond Release
C/015/0019
Emery County, Utah

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Utah Coal Regulatory Program

DECISION DOCUMENT

Cottonwood/Wilberg Mine Phase II and III Bond Release - Old Waste Rock Site Emery County, Utah

ACTION

Grant approval of Phase II and III bond release.

On April 16, 2008, PacifiCorp, through Energy West Mining Company, submitted an application for Phase II and III Bond Release on approximately 13.81 acres of land at the Cottonwood/Wilberg Mine Old Waste Rock Site. PacifiCorp has posted a surety bond with the Division of Oil, Gas and Mining for the Cottonwood/Wilberg Mine in the amount of \$3,252,000.00, payable to the Utah Division of Oil, Gas and Mining and the US Office of Surface Mining Reclamation and Enforcement. The Permittee is not requesting a reduction in the bond amount at this time because the bond calculation includes reclamation costs for other areas.

The area covered by this bond release application is the reclaimed 13.81 acres of the Cottonwood/Wilberg Old Waste Rock Site in Township 17 South, Range 7 East, Section 34, NE1/4 SE1/4 and Section 35, E1/2 SW1/4. The site, on BLM Right-of-Way (ROW) U-37642, is located approximately 2 miles from the Cottonwood Mine and on the east side of State Highway 57. The disturbed area covers a total of 15.62 acres: the 1.81 acres that are not reclaimed provide storage for rock and soil that are to be used for reclamation of the Cottonwood/Wilberg Mine.

The Permittee published notification of the application for bond release in the Emery County Progress on June 24, July 1, 8 and 15, 2008. On November 19, 2008 the Division sent a letter inviting parties of interest to participate in a bond release inspection of the site, and the on-site inspection was done on Wednesday December 3, 2008. Dennis Oakley and Guy Davis from PacifiCorp – Energy West Mining Company accompanied three representatives from the USBLM and several Division personnel. Attachment 12 of the bond release application identified structures still to be removed, and these were removed before the December 3 inspection. A copy of the inspection report is attached.

Utah Coal Regulatory Program

The Application for Phase II and III Bond Release contains notarized certification from Kenneth S. Fleck (Geology and Environmental Affairs Manager, Energy West Mining Company) that the information contained in the request is true and correct to the best of the his knowledge and belief (Attachment 1). The application contains a draft of the notification letter sent to interested parties (Attachment 2), a draft newspaper advertisement (Attachment 3), and a legal description and map showing the required information for the bond release area (Attachment 4). Copies of the actual notification letters were sent to the Division on June 23, 2008. Newspaper publication was confirmed at https://www.arcasearch.com/us/ut/?paper=usut100, and the Permittee sent the Division a copy of the affidavit of publication.

Reclamation treatments are described in Attachment 5. Attachment 6 is a brief history of the site. Attachment 7 summarizes the current reclamation bond calculation. Vegetation analyses from the 2005 - 2006 field season are in Attachment 8.

Attachment 9 contains a demonstration, based on RUSLE calculation, that the steep outslope of the reclaimed waste pile (which is topped by a berm on the west, south, and east sides) is losing topsoil and contributing sediment to drainages at rates (0.12/acre/year and 223 lbs/year) not significantly higher than the reference area (0.08 t/acre/year and 160 lbs/year). Except for this outslope, all runoff from the waste rock site is impounded within the berm and infiltrates into the reclaimed surface, eliminating any contribution of sediment to drainages outside the permit boundary. A small basin remains on top of Cell 3, but there are no diversions into this basin and the slopes and bottom are well vegetated. There are no remaining sediment control structures (ponds, silt fences, straw bales) or diversions to be removed or further reclamation work to be done.

Attachments 10 and 11 contain, respectively, a demonstration that the period of extended responsibility has been met and demonstration that post-mining land use has been achieved. Attachment 12 identifies structures to be removed for final reclamation; all of these had been removed for the December 3, 2008 inspection.

The Division of Oil, Gas and Mining finds that PacifiCorp has completed Phase II and III reclamation of the Cottonwood/Wilberg "Old" Waste Rock Site as required by the Utah Coal Mining Rules. In a letter dated July 10, 2008, the BLM stated their concurrence with Phase II and III bond release: this concurrence was based on an inspection that took place on July 2, 2008 and was confirmed after the December 3 inspection and a third inspection by the BLM on December 12.

BACKGROUND

Utah Coal Regulatory Program

On April 16, 2008, the Permittee submitted an application to the Division for release of the reclamation bond on 13.81 acres of the Cottonwood/Wilberg Old Waste Rock Site. The Old Waste Rock Site is located approximately 35 miles southwest of Price, Utah and 2 miles from the Cottonwood/Wilberg Mine, on the east side of State Highway 57.

The Old Waste Rock Site is on BLM Right of Way (ROW) U-37642, granted in 1977. The 48.62 acre ROW was initially to be used as a truck loadout with storage, but the BLM issued a modification to the ROW to use the land for storage of underground development waste. In 1997, PacifiCorp relinquished 1.08 acres from the undisturbed portion of the ROW for an access road to the Texaco #35-14 gas well. On November 2, 1999, PacifiCorp relinquished another 12.98 acres of the ROW to accommodate a utility corridor servicing Texaco's coal bed methane degasification well #34-80: this was mainly undisturbed acreage on the west side of State Highway 57. Current total acreage in ROW UTU-37642 is 34.56 acres.

The total area disturbed at the Old Waste Rock Site is 15.62 acres. PacifiCorp submitted an application for Phase I bond release on 13.81 reclaimed acres on December 17, 1998: the unreclaimed 1.81 acres store rock and soil that are to be used for reclamation of the Cottonwood/Wilberg Mine. The Division approved the Phase I bond release on July 22, 1999. This application for Phase II and III bond release is for the reclaimed 13.81 acres that received Phase I bond release.

The Permittee excavated seven cells beginning in 1983, each cell surrounded with a berm of excavated material to contain storm runoff from a 10-year, 24-hour event. The Permittee also constructed a berm along the east, south and west sides of the entire disturbed area. Excavated material stored in the berms provided the backfill and cover for each cell as it was filled with waste rock and then reclaimed. Mine refuse came from both the Cottonwood/Wilberg and Des Bee Dove Mines. After each cell was backfilled and graded, the Permittee seeded the area with an approved seed mixture. The last backfilling, grading, and seeding were completed in 1992-93 after cell seven reached its capacity. The berm remains along the east, south, and west sides of the reclaimed site. With two exceptions there has been no mining activity at the Cottonwood/Wilberg Old Waste Rock Site since 1993: in 2008 the Permittee removed fences, gates, signs, vegetation monitoring enclosures, silt fence, and debris from the bond release area, which did not create any disturbance, and the Permittee continues to use the abutting, unreclaimed rock and soil storage area.

Reclamation activities occurred as follows:

- 1983, waste rock disposal site developed.
- 1992 1993, final backfilling and grading.
- 1993, final seeding.

Utah Coal Regulatory Program

- December 1998, PacifiCorp applied for Phase I bond release.
- July 1999, Phase I bond release approved.
- 2005 2006, Mt. Nebo Scientific monitored vegetation for Phase III bond release.

CHRONOLOGY FOR PHASE II and III BOND RELEASE

April 16, 2008	PacifiCorp, through Energy West Mining Company, submitted an application for Phase II and III Bond Release.
June 23, 2008	PacifiCorp, through Energy West Mining Company, sent letters to local governments and property owners notifying them of the proposed bond release: Ms. Dixie Swasey, Emery County Recorders Office; Mr. Ray Peterson, Emery County Public Lands Council; Emery County Commissioners; Mr. Mike Stiewig, U.S. Bureau of Land Management Price Field Office; Mr. Jim Kohler, U.S. Bureau of Land Management State Office; and Mr. Brent Stettler, Utah Div. Wildlife Resources.
June 24, July 1, 8, and 15, 2008	Phase II and III bond release published in the <u>Emery County Progress</u> , an Emery County newspaper.
July 2, 2008	Preliminary site inspection
July 10, 2008	The Division receives concurrence for Phase II and III bond release from the BLM.
August 18, 2008	End of public comment period. No comments received.
November 19, 2008	The Division sent letters of invitation to attend the bond release inspection on December 3, 2008 (the Division failed to notify OSM).
December 3, 2008	Phase II and III bond release inspection.

In attendance:

Dennis Oakley, Energy West Mining Company

Guy Davis, Energy West Mining Company

Sue Wiler, BLM Mike Robinson, BLM Connie Lechin, BLM Jim Smith, DOGM

Utah Coal Regulatory Program

Priscilla Burton, DOGM April Abate, DOGM Ingrid Wieser, DOGM Joe Helfrich, DOGM Pete Hess, DOGM

SUMMARY OF FINDINGS

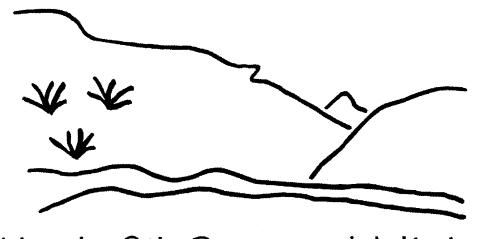
The Phase II and III bond release request is for the Cottonwood/Wilberg Old Waste Site. The April 16, 2008 bond release request provided review of the waste disposal site and technical evaluation of the supporting data. The bond release was advertised for four consecutive weeks, from June 24 to July 15, 2008, in the Emery County Progress. The Division received no comments during the public comment period, which ended August 18, 2008. The Division held a preliminary site inspection on July 2, 2008, and the BLM sent a letter giving concurrence to the bond release on July 10. A final bond release inspection was conducted December 3, 2008, and the Division evaluated whether there was any reclamation work remaining to be done, whether there was any evidence of pollution to surface or subsurface waters, and if all other aspects relating to the requested bond release had been completed. The final assessment from the inspection was that the site was ready for Phase II and III bond release.

PHASE II and III BOND RELEASE RECOMMENDATION

Grant approval of Phase II and III bond release. PacifiCorp has successfully revegetated the 13.81 reclaimed acres, demonstrated that the site is not contributing suspended solids to runoff or stream flow in excess of regulatory requirements, and successfully completed all surface coal mining and reclamation operations.

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State of Utah



Utah Oil Gas and Mining

Coal Regulatory Program

Cottonwood/Wilberg Mine
PacifiCorp
Old Waste Rock Site Technical Analysis
June 25 2009

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TECHNICAL ANALYSIS DESCRIPTION

On April 16, 2008, PacifiCorp, through Energy West Mining Company, submitted an application for Phase II and III Bond Release on approximately 13.81 acres of land at the Cottonwood/Wilberg Mine Old Waste Rock Site. PacifiCorp has posted a surety bond with the Division of Oil, Gas and Mining for the Cottonwood/Wilberg Mine in the amount of \$3,252,000.00, payable to the Utah Division of Oil, Gas and Mining and the US Office of Surface Mining Reclamation and Enforcement. The Permittee is not requesting a reduction in the bond amount at this time because the bond calculation that includes the Old Waste Rock Site is tied to reclamation costs for other areas.

The Old Waste Rock Site is on BLM Right of Way (ROW) U-37642, granted in 1977. The 48.62 acre ROW was initially to be used as a truck loadout with storage, but the BLM issued a modification to the ROW to use the land for storage of underground development waste. In 1997, PacifiCorp relinquished 1.08 acres from the undisturbed portion of the ROW for an access road to the Texaco #35-14 gas well. On November 2, 1999, PacifiCorp relinquished another 12.98 acres of the ROW to accommodate a utility corridor servicing Texaco's coal bed methane degasification well #34-80: this was mainly undisturbed acreage on the west side of State Highway 57. Current total acreage in ROW UTU-37642 is 34.56 acres.

The area covered by this bond release application is the reclaimed 13.81 acres of the Cottonwood/Wilberg Old Waste Rock Site in Township 17 South, Range 7 East, Section 34, NE1/4 SE1/4 and Section 35, E1/2 SW1/4. The site is located approximately 2 miles from the Cottonwood Mine and on the east side of State Highway 57. The disturbed area covers a total of 15.62 acres: the 1.81 acres that have not been reclaimed provide storage for rock and soil that are to be used for reclamation of the Cottonwood/Wilberg Mine.

The Permittee excavated seven cells at the Old Waste Rock Site beginning in 1983, each cell surrounded with a berm of excavated material to contain storm runoff from a 10-year, 24-hour event. The Permittee also constructed a berm along the east, south and west sides of the entire disturbed area. Excavated material stored in the berms provided the backfill and cover material. After each cell was filled with waste rock, it was backfilled, graded, and seeded with a Division approved seed mixture. Mine refuse came from both the Cottonwood/Wilberg and Des Bee Dove Mines.

The last backfilling, grading, and seeding were completed in 1992-93 after cell seven reached its capacity. The berm remains along the east, south, and west sides of the reclaimed area. With two exceptions there has been no mining activity at the Cottonwood/Wilberg Old Waste Rock Site since 1993: in 2008 the Permittee removed fences, gates, signs, vegetation monitoring enclosures, silt fence, and debris from the bond release area, which did not create any

TECHNICAL ANALYSIS DESCRIPTION

disturbance, and the Permittee continues to use the abutting, unreclaimed 1.81-acre rock and soil storage area.

Mt. Nebo scientific monitored the vegetation of the site nearly annually since reclamation and collected the final two consecutive years of data in order to apply for Phase III bond release in 2005 and 2006.

The Permittee published notification of the application for Phase II and III bond release in the <u>Emery County Progress</u> on June 24, July 1, 8 and 15, 2008. On November 19, 2008 the Division sent a letter inviting parties of interest to participate in a bond release inspection of the Old Waste Rock Site, and the on-site inspection was done on Wednesday December 3, 2008. Dennis Oakley and Guy Davis from PacifiCorp – Energy West Mining Company accompanied three representatives from the USBLM and several Division personnel.

The Application for Phase II and III Bond Release for the Cottonwood/Wilberg Mine Old Waste Rock Site contains notarized certification from Kenneth S. Fleck (Geology and Environmental Affairs Manager, Energy West Mining Company) that the information contained in the request is true and correct to the best of the his knowledge and belief (Attachment 1). The application contains a draft of the notification letter sent to interested parties (Attachment 2), a draft newspaper advertisement (Attachment 3), and a legal description and map showing the required information for the bond release area (Attachment 4). Copies of the actual notification letters were sent to the Division on June 23, 2008. Newspaper publication was confirmed at https://www.arcasearch.com/us/ut/?paper=usut100, and the Permittee sent the Division a copy of the affidavit of publication.

Reclamation treatments are described in Attachment 5. Attachment 6 is a brief history of the site. Attachment 7 summarizes the current reclamation bond calculation. Vegetation analyses from the 2005 - 2006 field season are in Attachment 8.

Attachment 9 contains a demonstration, based on RUSLE calculation, that the steep outslope of the reclaimed waste pile (which is topped by a berm on the west, south, and east sides) is losing topsoil and contributing sediment to drainages at rates (0.12/acre/year and 223 lbs/year) not significantly higher than the reference area (0.08 t/acre/year and 160 lbs/year). Except for this outslope, all runoff from the waste rock site is impounded within the berm and infiltrates into the reclaimed surface, eliminating any contribution of sediment to drainages outside the permit boundary. A small basin remains on top of Cell 3, but there are no diversions into this basin and the slopes and bottom are well vegetated. There are no remaining sediment control structures (ponds, silt fences, straw bales) or diversions to be removed or further reclamation work to be done.

Attachments 10 and 11 contain, respectively, a demonstration that the period of extended responsibility has been met and demonstration that post-mining land use has been achieved.

TECHNICAL ANALYSIS DESCRIPTION

Attachment 12 identifies structures to be removed for final reclamation; all of these had been removed for the December 3, 2008 inspection.

The Division of Oil, Gas and Mining finds that PacifiCorp has completed Phase II and III reclamation of the Cottonwood/Wilberg Old Waste Rock Site as required by the Utah Coal Mining Rules. In a letter dated July 10, 2008, the BLM stated their concurrence with Phase II and III bond release: this concurrence was based on an inspection that took place on July 2, 2008 and was confirmed after the December 3 inspection and a third inspection by the BLM on December 12.

GENERAL CONTENTS

RIGHT OF ENTRY

Regulatory Reference: 30 CFR 778.15; R645-301-114

Analysis:

Old Waste Rock Site

The Legal and Financial Volume includes basic information on ROW U-37642 at the Old Waste Rock Site, granted by the BLM in 1977 and modified in 1983, 1997, and 1999. [JDS, 06242009]

Findings:

Information in the application is sufficient to meet the requirements of the Coal Mining Rules.

LEGAL DESCRIPTION AND STATUS OF UNSUITABILITY CLAIMS

Regulatory Reference: 30 CFR 778.16; 30 CFR 779.12(a); 30 CFR 779.24(a)(b)(c); R645-300-121.120; R645-301-112.800; R645-300-141; R645-301-115.

Analysis:

Old Waste Rock Site

The Legal and Financial Volume includes information on the Old Waste Rock Site. The metes and bounds of the area to be released from the bond are in the submittal. The submittal includes a map of the bond release area; however, the map is not formatted (numbered) for insertion into the MRP. [JDS, 06242009]

Findings:

Information in the application is sufficient to meet the requirements of the Coal Mining Rules.

GENERAL CONTENTS

PERMIT TERM

Regulatory References: 30 CFR 778.17; R645-301-116.

Analysis:

Permit Renewal

The permit for the Cottonwood/Wilberg Mine was issued on July 6, 2004 and expires on July 6, 2009. On March 9, 2009, the Division received the application for permit renewal, which was 120 days prior to permit expiration. [IW]

Findings:

The information is adequate to meet the minimum regulatory requirements for this section.

PUBLIC NOTICE AND COMMENT

Regulatory References: 30 CFR 778.21; 30 CFR 773.13; R645-300-120; R645-301-117.200.

Analysis:

Permit Renewal

According to the R635-300-120 coal regulations, the Applicant is responsible for placing an advertisement in a local newspaper at least once a week for four consecutive weeks. The advertisement is to contain the following:

- 1. Name and business address of the Applicant
- 2. A map or description of the location and boundaries or the permit area.
- 3. The location where a copy of the application is available
- 4. The name and address of the Division
- 5. The description of a public road within 100 ft of the outside right of way if applicable
- 6. An experimental practice statement if applicable

The Permit Renewal Application includes a copy of the Public Notice advertisement that will be placed in the local newspaper. It includes the name and business address of the applicant, a description and a map of the location of the permit boundary, the location of the recorders office as well as the Division. There is no public road within 100 ft of the outside right of way

GENERAL CONTENTS

that has not already been advertised for public notice. There is no experimental practice associated with the mine.

The Division notified the Applicant that the application was administratively complete on March 16, 2009. The information provided is adequate to meet the minimum regulatory requirements upon completion of the four-week advertisement.

Old Waste Rock Site

PacifiCorp notified all adjoining property owners, local governmental bodies, etc, informing them of the operator's intention to seek Phase II and III bond release at the Old Waste Rock Site. A public notice was published in the Emery County Progress commencing on June 24, 2008 and ran for four consecutive weeks. [JDS, 06242009]

Findings:

Information in the application is sufficient to meet the requirements of the Coal Mining Rules.

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

PERMIT AREA

Regulatory Requirements: 30 CFR 783.12; R645-301-521.

Analysis:

Permit Renewal

The permit issued in 2004 included a permit area of 6,886.88 acres with a disturbed area of 62.82 acres. Since 2004, the Division approved several lease relinquishments and the current permit area suggested for permit renewal is approximately 4,128.43 acres located in Township 17 S, R6E in the portions of Sections 13, 24 and 25; T17S R7E in the portions of Sections 15 through 18, 21, 22, 27 through 30, and 34 and totaling encompassing all of section 19 and 20. The total disturbed area listed by the Permittee is 62.24 acres. [IW]

Findings

The information provided in the application is adequate to meet the minimum regulatory requirements.

SUBSIDENCE CONTROL PLAN

Regulatory Reference: 30 CFR 784.20, 817.121, 817.122; R645-301-521, -301-525, -301-724.

Analysis:

Performance Standards for Subsidence Control

Subsidence Monitoring

There has not been any secondary extraction at the Cottonwood / Wilberg since 1995. It was assumed during the writing of the 2007 Annual Report review that all areas, which had been undermined, had reached maximum deformation and were stable at that time. Due to a flaw discovered in collected data from the 2007 annual flyover, the Permittee requested an extension of time from the Division to resolve / correct the data error. The Division granted an extension of time to allow for data resolution on June 30, 2009.

PacifiCorp submitted information for the 2007 Annual Report on September 29, 2008. In 2001, secondary extraction activities at the Trail Mountain Mine came to an end and both Mines were sealed and placed in temporary cessation status.

The Permittee submitted subsidence monitoring information for 16 areas which are relevant to secondary extraction for all of the Energy West coal mining properties, (Des-Bee-Dove Mine, Trail Mountain Mine, Cottonwood / Wilberg Mine and Deer Creek Mine).

Of the 16 areas monitored, only four of eight areas related to the Cottonwood / Wilberg Mine had reportable data. The four areas which are no longer monitored are;

- Area #12
- The 2nd Left area of the Wilberg Mine (Area 12) never showed measurable subsidence and is no longer being reported.
- Monitoring areas 15, 16 and 17 have been relinquished and are no longer being monitored.
- The areas for which data has been submitted include Areas 4, 5, 6, 11 and 14.

AREA 4

Area 4 monitors areas of secondary extraction in the Deer Creek Mine 2nd through 17 Right longwall panels, which overlie longwall panels in the Cottonwood / Wilberg Mine (9th, 8th, 5th, and 2nd Left longwall panels). Secondary extraction in the Deer Creek Mine ended in 1991. Longwall mining in the Cottonwood Mine began in 1992 in the 9th Left off of 2nd North. In August of 1995, longwall mining in the Cottonwood Mine was completed.

13 feet of subsidence was measured in the areas of dual seam extraction. Subsidence monitoring from 1995 through 2007 has shown virtually no change. Charts 2 and 3 are subsidence profile charts for the dual seam extraction area.

Figure 4 shows the location of repaired and seeded surface fractures.

The Permittee reports that several springs located in Area 4 on East Mountain have had flow fluctuations, but these fluctuations are considered as the response to precipitation in the area, and not caused by mining.

The monitoring of the ephemeral stream in the left fork of Grimes Wash shows no changes that can be attributed to mining.

AREA 5

Area 5 is also a monitoring area where dual seam secondary extraction has been practiced in the upper Deer Creek Mine, overlying the lower Cottonwood / Wilberg Mine. The longwall panels in Area 5 associated with the Cottonwood Mine were 6th through 1st Right. The last panel, 1st right was completed in August of 1994. The first subsidence noted in Area 5 was noted in 1984.

As can be seen from Figure 5, more than 13 feet of subsidence has occurred where both coal seams have been mined via longwall methods.

2007 subsidence monitoring showed virtually no change when compared to submitted 2006 data for Area 5.

No surface impacts have been identified in Area 5. The angle of draw in Area 5 has been calculated as varying from 0 to 13 degrees.

Area 6

Area 6 involves the 1st and 2nd West longwall panels in the Wilberg Mine, which saw the completion of secondary extraction activities in June of 1983. The maximum amount of subsidence measured in this area is between four and five feet.

Four springs located above the mining area show no adverse effects from nearby subsidence (as stated in the 2007 Hydrological Monitoring Report submitted by Energy West).

Area 11

Area 11 monitors another section of the permit area where dual seam extraction was practiced (Cottonwood 6th and 7th Right longwall panels). Subsidence exceeding 12 feet has been measured in this area. Area 11 has been stable since 1994.

The angle of draw, which has been measured in Area 11, varies from zero to 28 degrees.

Area 14

Mining was completed in the Cottonwood 6th and 7th East longwall panels in September of 1987. This area was relinquished in 1995, although the northern portion remains in the Cottonwood / Wilberg Mine permit area. For this reason, Area 14 will continue to be monitored.

The overburden in Area 14 ranges from 200 to 1400 feet.

Subsidence varying from five feet (on East end of 6^{th} East) to 15 feet has been measured over the 6^{th} East longwall panel, (See Figure 8).

Surface fractures over this area were repaired in 1998.

Energy West's experience with photogrammetric monitoring can probably not be exceeded in Utah. The error, which was reported by them in the 2007 monitoring data, was probably not capable of being resolved, as it is an inherent problem within the photo resolution when overflying steep and rugged terrain. The same "bulls-eye" of subsidence shown in the 1996 data was noted as still being present in the 2007 data.

Helicopter reconnaissance of Area 14 showed no visible evidence of change in the area. "Any inaccuracies present in the survey are due to the extremely rugged terrain" (which has been undermined / PHH).

There have been no changes in the last seven years of monitoring.

There are no springs in Area 14.

The angle of draw, which has been measured in this area, is 25 degrees.

Findings:

Based upon information submitted for the five areas being monitored, it appears that all areas where both dual and single seam secondary extraction have been practiced have reached maximum deformation and are stable. All submitted data support this finding. All significant surface cracks observed by the Permittee have been reported as being repaired. The Permittee states that no springs or stream reaches have been affected. All information is certified by Mr. Ken Fleck, a certified professional geologist in the State of Utah, and Manager of Environmental Affairs for the Permittee.

RECLAMATION PLAN

GENERAL REQUIREMENTS

Regulatory Reference: PL 95-87 Sec. 515 and 516; 30 CFR Sec. 784.13, 784.14, 784.15, 784.16, 784.17, 784.18, 784.19, 784.20, 784.21, 784.22, 784.23, 784.24, 784.25, 784.26; R645-301-231, -301-233, -301-322, -301-323, -301-323, -301-331, -301-333, -301-341, -301-342, -301-411, -301-412, -301-422, -301-512, -301-513, -301-521, -301-522, -301-525, -301-526, -301-527, -301-528, -301-529, -301-531, -301-533, -301-534, -301-537, -301-542, -301-623, -301-624, -301-625, -301-626, -301-632, -301-731, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-732, -301-733, -301-746, -301-746, -301-764, -301-830.

Analysis:

Old Waste Rock Site

The Bond Release Application clearly identifies the area requested for Phase II and Phase III bond release on the *Phase III Bond Release* Map as well as in Attachment 2 *Draft Letters to Interested Parties*. In the letter, the Applicant identifies the area of the lease as located within Township 17 South, Range 7 East, Section 34, NE1/4 SE1/4 and Section 35, E1/2 SW1/4. The Applicant identifies the southern area within the lease boundary as 18.45 acres, of which 15.62 acres are disturbed. The Application for bond release applies to 13.81 acres of the disturbed area in the southern boundary.

The application for Phase II and Phase III bond release includes a description and a map of the entire 34.56 acres of the UTU-37642 lease area as well as the seven reclaimed cells within the 13.81 acres being considered for bond release. Cell one was reclaimed in 1983 and additional cells were reclaimed in the following years concluding the reclamation of cells, five, six and seven which occurred in 1993. [IW]

Findings:

The information provided in the Phase II and III Bond Release Application at the Old Waste Rock Site is adequate to meet the minimum regulatory requirements for this section.

POSTMINING LAND USES

Regulatory Reference: 30 CFR Sec. 784.15, 784.200, 785.16, 817.133; R645-301-412, -301-413, -301-414, -302-270, -302-271, -302-272, -302-273, -302-274, -302-275.

Analysis:

Old Waste Rock Site

Land use information can be found in the Cottonwood/Wilberg MRP in Volume 2, Part 2. In attachment 11 of the Phase II and III bond release for the Old Waste rock site, is a demonstration of the achievement of the post mining land use. Revegetation Success standards depend on the type of post mining land use, so it is therefore important that the applicant describe the land use in the Application for bond release. The Applicant states that the land use for the Wilberg Mine was established in the early 1980's as grazing and Wildlife use.

The Applicant demonstrates that the post mining land use requirements have been met according to the combined cells and berm area production of 1350 lbs./ acre estimated by Mt. Nebo Scientific. Using this production estimate, the reclaimed area can produce .51 AUM/ acre compared to the estimate by the BLM in 1982 of the pre-developed site of .022 AUM/ acre. This demonstrates that the reclaimed area has a higher production and better grazing land use capability than its pre-developed conditions. [IW]

Findings:

The information provided in the application is adequate to meet the minimum regulatory requirements for this section.

APPROXIMATE ORIGINAL CONTOUR RESTORATION

Regulatory Reference: 30 CFR Sec. 784.15, 785.16, 817.102, 817.107, 817.133; R645-301-234, -301-412, -301-413, -301-512, -301-531, -301-533, -301-533, -301-536, -301-542, -301-731, -301-732, -301-733, -301-764.

Analysis:

Old Waste Rock Site

The Permittee sequentially filled seven cells with refuse and reclaimed them. Backfilling and grading was completed in 1992-93, after cell seven reached its capacity. There has been no further filling or grading at this site. The Division granted Phase I bond release on July 22, 1999.

The surface is gently slopping and flat, and generally resembles the surrounding terrain. A berm remains on the east, west, and south sides of the waste rock site. This berm was constructed initially to keep intercepted rainfall from escaping the site, and still retains runoff on-site. All precipitation that is intercepted on the site eventually infiltrates into the ground. The berm has well established vegetation, described in the 2006 Vegetation Report in Attachment 8.

Date

PERMIT INFORMATION TABLE

An incised sediment basin remains: it was constructed to keep runoff from Cell 3 out of Cell 4 while the latter was being filled with waste rock. This basin no longer collects runoff and no diversions divert runoff into the basin. Vegetation has established within and around the basin.

During the December 3 inspection, the BLM indicated the berm around the site and the flatness did not meet the BLM's standard for AOC at reclamation, which was a stipulation added to the ROW when it was last renewed; however, after a discussion between the Permittee and the BLM, the BLM concurred that the site met AOC. [JDS, 06242009]

Findings:

The site has been restored to AOC.

BACKFILLING AND GRADING

Regulatory Reference: 30 CFR Sec. 785.15, 817.102, 817.107; R645-301-234, -301-537, -301-552, -301-553, -302-230, -302-231, -302-232, -302-233.

Analysis:

General

Old Waste Rock Site

Backfilling and grading at the Old Waste Rock site was completed in 1992-93, after cell seven reached its capacity. There has been no further filling or grading at this site. The Division granted Phase I bond release on July 22, 1999. [JDS, 06242009]

Findings:

Backfilling and grading is sufficient to meet the requirements of the Coal Mining Rules.

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 784.14, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-301-512, -301-513, -301-514, -301-515, -301-532, -301-533, -301-542, -301-723, -301-724, -301-725, -301-726, -301-726, -301-729, -301-731, -301-733, -301-742, -301-743, -301-751, -301-760, -301-761.

Analysis:

Hydrologic Reclamation Plan

Diversions

Cottonwood Fan Portal

The Coal Mining Rules require that all temporary diversions will be removed when no longer needed for the purpose for which they were authorized, and that before bond release, all temporary structures are to be removed and reclaimed. According to Volume 11, Sections R645-301-761 and -762.100 (page 25) as originally approved, UD-3 and DD-4 were to be retained as diversions to prevent disturbance of steep-slope reclamation areas. The Division recommended reclamation of undisturbed drainage diversion ditch UD-3 and ditch DD-4, but the Permittee maintained that these ditches were needed to protect the reclaimed and revegetated areas on the slopes below (see memo dated February 4, 1998).

A bond-release inspection was conducted on April 2, 2002. UD-3 was found not to be in accordance with the approved reclamation plan and had not been maintained to perform as described in the MRP (Volume 11, R645-301-761; Plates 4-8 CM-10828-CP and 4-9 CM-10827-CP). In several places sediment had accumulated and reduced the capacity of the ditch to the point that water had either overflowed or breached the ditch. Sediment had filled the silt fence at the south end of the ditch.

The Permittee had come to the conclusion that the reclaimed areas below UD-3 and DD-4 would not be jeopardized by overland flow, that the backfill would not become saturated and fail. The Permittee anticipated that UD-3 and DD-4 would reclaim themselves with time and that flow would eventually be reestablished in natural channels down the hillside without forming new rills or gullies. Therefore, at the time of the April 2002 inspection, they had stopped maintenance and repair of UD-3 and DD-4. The Permittee felt that prior discussions with the Division had established that the Permittee would be able to leave these ditches "as is" and allow them to self-reclaim.

However, because UD-3 was not being maintained as described in the MRP, the Division required that the Permittee clarify in the MRP that the undisturbed drainage collection ditch UD-3 above the site was not to remain as a permanent diversion, and provide a reclamation plan for UD-3. In response to the Division's requirement for a reclamation plan, the August 2002 submittal added that no maintenance will be done and UD-3 and DD-4 will be allowed to self-reclaim (Section 762.100).

Some sections of ditch UD-3 have already returned to AOC and an apparently stable condition without any reclamation effort, and these sections probably would not benefit from further regrading or backfilling. Other sections of UD-3 however, such as the steeper reaches and the south end, may require backfilling and regrading to achieve adequate appearance,

PERMIT INFORMATION TABLE

function, and stability and to eliminate concentration of runoff due to eventual overflow or failure.

Satisfactory revegetation may require reseeding or replanting, and weed control may be needed. Section 350 now states that weed control will not be undertaken unless it is determined necessary due to weed dominance and delayed rate of succession; however, all noxious weeds will be eradicated either chemically or physically if they become established on the site.

Surface runoff - mainly sheet flow - and seepage from the french drains report to ditch DD-4. In the past, the Permittee has asserted that the county requested, apparently unofficially, that DD-4 remain as a terrace to stop debris from rolling down the slope and onto the road, but it appears the Permittee no longer considers this a reason to retain this ditch. Cast-off material below DD-4 was seeded in 1981, and Dr. Patrick Collins measured cover and productivity for this area in 1994 and 1995. The methods used did not meet the 90% statistical confidence required for final bond release, but Dr. Collins indicated revegetation has been successful (1997 Annual Report).

According to R645-301-880.320, to receive Phase II bond release, the disturbed lands where DD-4 and UD-3 are located:

- Must have revegetation established.
- Cannot be contributing suspended solids in excess of requirements set by state and federal water-quality laws, to streamflow or runoff outside the permit area.

Self-reclamation at UD-3 and DD-4 may eventually achieve adequate AOC, appearance, function, and stability and eliminate the potential for overflow or failure of the ditches. The Permittee needs to realize that a more aggressive alternative, perhaps involving additional backfilling or regrading and revegetation, might be needed if self-reclamation does not produce the satisfactory, stable results needed for Phase II and Phase III bond release. The plan itself does not determine final bond release; results are what will determine that. [JDS]

Old Waste Rock Site

There has never been a sedimentation pond, diversion, or water monitoring at this site.
[JDS]

Sediment control measures

Cottonwood Fan Portal

Damage from erosion at the south end of UD-3 has been filled and regraded. See the discussion under Reclamation Backfilling and Grading above.

The revised Plate 5-5 (Drawing KS1710D) no longer shows a silt fence (also described on Soils - page 6) at the top of the area revegetated in 1981, which is in agreement with Plate 3-13 (Drawing CM-10501-CP), the Hydrological Map.

Hydroseed and hydromulch or blanket mulch were placed on slopes and benches where soils were redistributed, as committed to in the MRP. [JDS]

Old Waste Rock Site

Hydrologic information, as it relates to sediment control at the Old Waste Rock Site, is in Attachment 9 of the Phase II and III bond release application. Berms were used to control runoff, and a berm on the east, north, and west sides of the disturbed area remains and continues to keep runoff on-site, where it infiltrates and provides moisture for vegetation. The Permittee states there have been no indications of sediment leaving the reclaimed area. There has never been a sedimentation pond, diversion, or water monitoring at this site. Silt fence was used for sediment control; the last silt fence being removed during the site clean-up in 2008 (Attachment 12).

The outslope of the berm at the Old Waste Rock Site, with a total surface area of 0.93 acres, has the potential to contribute additional sediment to areas outside the permit area. The Permittee used RUSLE to compare estimated soil losses from the berm outslope and the reference area. The soil loss from the berm was estimated to be 0.12 t/ac/yr, compared to 0.086 t/ac/yr for the Reference Area. The Permittee has concluded that the estimated loss is greater for the berm area due in part to its steeper slope; 50% compared to 12% in the Reference Area. Based on the RUSLE calculations, the Permittee has estimated that the 0.93-acre berm outslope contributes 223 lbs. of sediment per year, compared to 160 lbs of sediment per year for an equivalent area of the Reference Area, and that the soil loss from the berm is insignificant when compared to the surrounding area as a whole. [JDS, 06242009]

Siltation structures

Cottonwood Fan Portal

Silt fences in ditch DD-4 are full to capacity with sediment. These silt fences are to be removed now that the sedimentation pond has been removed. [JDS]

Sedimentation ponds

Cottonwood Fan Portal

PERMIT INFORMATION TABLE

Surface runoff and seepage from the french drains report to ditch DD-4. The pond at the end of DD-4, which was generally dry, was removed in 2002. Organic-rich sediment from the pond was recovered and used as surface covering in reclamation of the pond area. [JDS]

Findings:

The Hydrologic Reclamation plan is adequate to meet the requirements of the Coal Mining Rules. [JDS, 06242009]

REVEGETATION

Regulatory Reference: 30 CFR Sec. 785.18, 817.111, 817.113, 817.114, 817.116; R645-301-244, -301-353, -301-354, -301-355, -301-356, -302-280, -302-281, -302-282, -302-283, -302-284.

Analysis:

Revegetation: General Requirements

Old Waste Rock Site

Attachment five of the Application describes Reclamation Treatments Utilized at the Cottonwood/Wilberg "Old" Waste Rock Site. The Permittee states that the present environment conditions include existing vegetation consisting of pinyon-juniper, curlleaf mountain mahogany, Cutler ephedra, black sagebrush, Harriman yucca, Indian ricegrass and bottlebrush squirreltail. The Permittee also states that the present range condition is fair. As stated in the Vegetation Information Guidelines, "Reference areas must be in fair or better condition at the time of bond release sampling. For reference areas not meeting this criteria, describe management practices that will be employed to improve range condition. Range condition should be determined according to Soil Conservation Service guidelines." The Soil Conservation Service is now the Natural Resources Conservation Service (NRCS) and the NRCS or other regulatory authority would need to do an analysis of the reference site.

On January 29, 2009, the Division sent the Permittee the following deficiency related to the Phase II and Phase III bond release application.

R645-301-356.110: A signed statement by a regulatory authority needs to be included in the application describing the current range condition of the reference area and surrounding vegetation.

The Permittee contacted the Natural Resource Conservation Service (NRCS) to do a range site assessment of the reference area. The Vegetation Information Guidelines recommend

that the reference site be assessed by the Soil Conservation Service (SCS) using the Soil Conservation Service Guidelines and that the site must be in "fair" or "better" condition at the time of bond release sampling. In a conversation with Dean Stacy of the NRCS in May 2009, Mr. Stacy explained that the NRCS now uses the guidelines titled, "Interpreting Indicators of Rangeland Health, Technical Reference 1734-6, Version 4-2005" to do site assessments (See email from Dean Stacy under task 3273). The Division's Vegetation Information Guidelines need to be updated to reflect this change in methodology and organization for site assessments. Both the SCS method and the new NRCS method are used to determine how far the assessment site has departed from the expected condition (i.e. the undisturbed reference site). However, the SCS method primarily used production as an indicator of range health whereas the NRCS method assesses many parameters including soil structure, erosion, vegetation composition and diversity, production, invasive species, etc.

Using the new method developed by the NRCS, Dean Stacy conducted a site assessment in April 2009. A letter from Dean Stacy describing his assessment is included on page 74 of the Addendum Phase II and Phase III bond release application submitted in April 2009. He concluded that the site was in "good" condition, with relatively stable soil and hydrological functions. Mr. Stacy noted that the biological integrity was lacking, however, because the herbaceous component and diversity was far lower than it should be. The Potential Natural Community (PNC) for the site is at 25% herbaceous cover and 30% shrub cover. Both cover values were lower than the PNC. Even though Mr. Stacy concluded that the site was vulnerable, the reference area meets the criteria and is acceptable for a revegetation success standard for the reclaimed waste rock area. [IW]

Revegetation: Timing

Old Waste Rock Site

The Permittee describes the plant mixture used for revegetation in Attachment Five of the application. This plant mixture consists of native grasses, forbs and shrubs that are perennial and drought resistant. The Permittee planted the mixture after September 1 during favorable planting conditions. [IW]

Revegetation: Mulching and Other Soil Stabilizing Practices

Old Waste Rock Site

After seeding, alfalfa hay was used to mulch the area at a rate of two tons per acre and was crimped into the soil. [IW]

Revegetation: Standards For Success

Old Waste Rock Site

Reference area/Baseline data

Found in the MRP and on plate 2-15 and 2-16, the pre-developed old waste rock site consisted of a Pinyon-Juniper plant community. A Pinyon-Juniper reference area of 1.2 acres was selected and is adjacent to the reclaimed area in the Northern Parcel of the UTU-37642 lease area. The report indicates that due to the proximity of the reference area to the reclaimed area, other environmental variables are comparable between the two sites including soil, elevation, exposure and precipitation. The Pinyon-Juniper plant community represents a habitat that provides cover for wildlife but very little forage. Ideally, a mix of adjacent shrub/grassland and pinyon/juniper plant communities provides ideal habitat for wildlife because it provides forage and cover. The reclaimed area was obviously revegetated using plant species ideal for forage and not to imitate the adjacent pinyon/juniper reference area. Therefore, even though the reference area reflected the pre-development conditions of the site, it was probably not appropriate and a sagebrush/grass community should have been selected as a success standard. (Pinyon/juniper is a necessary habitat for wildlife, but due to its abundance in the site area, regulatory officials often prefer that a sagebrush/grassland community be planted in order to promote diversity and provide more forage for wildlife.) The Division only has authority in reference area similarity during site selection, not during bond release sampling.

Vegetation Monitoring

Pat Collins of Mt. Nebo Scientific conducted quantitative and qualitative vegetation monitoring annually from 1994 to 2006. The Permittee considers Years 2005 and 2006 the two consecutive year data to apply for Phase III bond release and these reports are found in Attachment 8 of the Bond Release Application.

2005 Monitoring

Seven cells, four berms and the Pinyon-Juniper reference area were sampled recording cover, frequency, composition, woody species density and production. A photograph of each cell, berm and reference area are also included in the report. Diversity was measured by three indices including MacArthur's Diversity Index, average number of species and richness.

Cover, composition and frequency was calculated using ocular methods with meter square quadrants. The mean total living cover for the cells and berms combined was 51.89% with the dominant plant species by cover and frequency being fourwing saltbush (Atriplex canescens), needle and thread grass (Stipa comata), Cheatgrass (Bromus tectorum), Crested wheatgrass (Agropyron cristatum), and Broom snakeweed (Gutierrezia sarothrae). The mean

total living cover for the reference area was 30.16% with the dominate plant species being Pinyon pine (*Pinus edulis*) and Utah juniper (*Juniperus osteosperma*).

The woody species density for the reclaimed area was estimated using the point-quarter method. The total woody species density for the combined cells and berms was estimated at 4382 individuals/ acre and for the reference area it was estimated at 799 individuals/ acre.

Productivity for the site was measured by double sampling. For the reclaimed area, production was estimated at 1,938.85-pounds/ acre and 355.47-pounds/ acre for the reference site.

Statistical analysis of the data indicated that total living cover; density and productivity of the reclaimed site were all significantly greater than that of the reference area. The R645 Coal regulation requirement for bond release states that for these measurements, the reclaimed area should be at least 90% of the success standard (reference area) using a 90-percent statistical confidence interval. For diversity indices, it is obviously beneficial for the reclaimed site to show significantly higher results than for the reference area.

Year two

Year two vegetation monitoring for bond release involved the same parameters as year one. The mean total living cover was 53.30% with the dominant plant species being Fourwing saltbush (Atriplex canescens), Indian ricegrass (Stipa hymenoides), Broom snakeweed (Gutierrezia sarothrae) and Crested wheatgrass (Agropyron cristatum). The mean total woody species density for the combined cells and berms was estimated at 5345 individuals/ acre.

The reference site had a total living cover of 34.67% consisting of dominant plant species Pinyon pine (*Pinus edulis*) and Utah juniper (*Juniperus osteosperma*). Woody species density for the reference site was estimated at 1360 plants/acre.

Statistical analysis of the data indicated that all parameters were again significantly greater for the reclaimed areas than for the reference site.

For both years, Cheat grass (Bromus tectorum) was present in the reclaimed site. Cheat grass is a non-native invasive species that degrades habitats, increases fire frequency and intensity on rangelands and can displace native grass species. The displacement of native species has not been found to be significant so the presence of the species will not affect bond release. However, it should not be included in vegetation success measurements as it detracts from the post mining land use of wildlife and grazing.

On January 29, 2009 the Division sent the Permittee the following deficiency: **R645-301-356.110:** The Applicant included the non-native invasive plant Bromus tectorum, (Cheat grass), in all parameters of vegetation monitoring. The presence of Bromus tectorum

Date

does not affect bond release, but it should not be included in demonstration of achievement of success standards.

The Permittee responded with the following:

Bromus tectorum is a well established invasive species throughout southeastern Utah. It is found throughout the range surrounding the waste rock site. Open range areas, similar to the waste rock site, are ideal habitats for Bromus tectorum to take hold. Most likely the source seed was imported by wildlife or wind.

Energy West talked with Patrick Collins (Mt. Nebo Scientific) who has historically monitored the site as well as gathered the data for the Phase II and III bond release application. As indicated in the Year 1 report, the total living cover for the reclaimed cells and berms was 51.89%. Bromus tectorum makes up 6.88% of this cover. In Year 2, the total living cover was 53.30%, with Bromus tectorum making up only 2.71% of the total living cover. Comparing the two years could indicate either the Bromus tectorum is declining or the sampling took place in a different proximity within the site. However, what the report correctly points out is that Bromus tectorum is a statistically insignificant cover source. If the species is excluded from monitoring (using the Year 1 data), it shows a mean cover of 45.01% compared to 30.16% reference area. Without having this information included in the data, this status of Bromus tectorum would have never been known.

The Division did not require a weed control program to eradicate all weeds within the site to achieve the standards of success for bond release. The presence or absence of this plant does not affect significantly or sway the outcome of the total living cover results. Bromus tectorum a is statistically insignificant plant that has been imported into the waste rock site area.

The Permittee demonstrated that the invasive species, Cheat grass, did not constitute a significant portion of the established vegetation on the site. Also, excluding the species from the analysis, the site would still meet all regulatory standards.

Additional Success Standards

An additional success standard for reclaimed areas with the post mining land use of wildlife habitat exists and states that the success of vegetation will be determined on the basis of tree and shrub stocking densities (R645-301-356.230). The minimum stocking amount is to be specified by the Division on the basis of local and regional conditions and after consultation with and approval by Utah agencies responsible for the administration of forestry and wildlife programs (R645-301-356.231). Furthermore, the regulations state that at the time of final bond release, the trees and shrubs should be healthy and at least 80 % are to have been in place for at least 60 % of the responsibility period, and 100% have been in place for at least two years (the 60/80 rule) (R645-301-356.232). The Permittee successfully measured other parameters but needs to fulfill the requirements for health and stocking adequacy of trees and shrubs. So, in order to demonstrate that this standard has been achieved, the Permittee needs to show that a.)

The minimum stocking density for trees and shrubs has been achieved (a density measurement selected by the regulatory agencies) and b.) That 80% of the final vegetation has been in place for at least six years, and all of the woody species used for the density calculation has been in place for at least two years. (The most obvious example would be to use year four and ten monitoring data, but any range can be used including year one and year six.)

Year three and Year nine data

Quantitative monitoring did not take place in year four (2000) so, in order to demonstrate the 60/80 rule the Permittee will have to select an alternate range. The annual report for 1999 contains some quantitative data for the site, but the density data and analysis appears to be in a separate report submitted to Energy West by Mt. Nebo Scientific.

On January 29, 2009, the Division sent the Permittee the following deficiency:

R645-301-356.200: Minimum woody species stocking densities needs to be specified on the basis of local and regional conditions in consultation with the DOGM and the Division of Wildlife Resources or other regulatory authority. The Applicant needs to demonstrate that minimum stocking densities have been achieved on the reclaimed area. And that no trees or shrubs that have been in place for less than two growing seasons are counted toward stocking adequacy as per R645-301-356.232.

The Applicant must demonstrate that 80% of the woody species used to demonstrate stocking density have been in place for at least 60% of the responsibility period (or six years). In this demonstration, the Applicant must provide in the bond release application all data and analysis reports from the monitoring years used.

The Division contacted Leroy Mead of DWR on May 20, 2009 to discuss an adequate density standard for the Old Waste rock site. It was determined that the success standard for woody species density would be that of the reference area.

The Permittee responded by providing and analyzing the monitoring data for year 2001, seven years prior to bond release application. The Permittee stated that in 2001, the woody species density of the reclaimed area was 2219.51 and 917.22 for the reference area. The Permittee only used these two numbers to explain that 242 percent of the woody species in the reclaimed area were in place in 2001 or seven years prior to bond release (the 242% was obtained by 2001 density of reclaimed area/2001 density of reference area). Therefore, the Permittee apparently demonstrated that the reclaimed site was 242% of the requirements for density seven years prior to bond release. However, reference area standards should be those during bond release sampling not seven years prior. The Permittee also explains that the density standard was set in 1982 by Jerry Barker from Bio-resources. This number is only the density of the reference area in 1982, *not* the approved bond release success standard. The Permittee did not

Date

PERMIT INFORMATION TABLE

correctly explain the demonstration of density success, but included enough information that the Division could clearly see the standards were met. The analysis is as follows:

In order to demonstrate that 80% of the woody species used to demonstrate stocking density have been in place for at least 60% of the responsibility period, the comparison should be $\{.80 \times \text{density in } 2001 \text{ sampling} < \text{current bond release sampling density}\}$. The density in 2001 was 2219.51-stems/ acre, and the density in 2006 was 5,345.26 stems/acre. .80 (2219.51) = 1775.26 which is less than 5345.26. The vegetation has clearly been established into a permanent, sustainable community. This only demonstrates five years before final bond release sampling of the site. However, the increase in plants indicates that the site is naturally regenerating and is not declining. The density during bond release sampling is well above the success standard, which is the density of the reference area at bond release.

Lastly, to demonstrate that all plants counted toward stocking adequacy have been in place for at least two growing seasons the Permittee should have provided more information. The Division is aware that the Permittee did not reseed the area after 1993, which was the year the reclamation was completed. During a site visit to the area after bond release sampling, the Division agreed that the site was well established and most of the vegetation was significant enough that it appeared it had been there for longer than two growing seasons. [IW]

Findings:

The information provided in the application is adequate to meet the minimum regulatory requirements of this section.

MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731.

Analysis:

Old Waste Rock Site

The plate in to the submittal Old Waste Rock Site Phase II and III Bond Release shows the boundary of the entire BLM ROW and delineates the reclaimed area, the adjacent soil and rock storage area, vegetation reference area, and the relinquished areas. [JDS, 06242009]

BONDING AND INSURANCE REQUIREMENTS

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

Analysis:

General

The Permittee included evidence of a performance bond in the application for permit renewal. In a letter dated July 31, 2007, the Permittee states that the bond was increased from \$3,082,587 to \$3,252,000 as a result of the Division's Cottonwood/Wilberg Mine Midterm review. The letter includes, as an attachment, the bond increase certificate, and a copy of the updated bond.

The Division reviewed the bond amount for the Cottonwood/Wilberg Mine during the 2007 Midterm review. During that review, the Permittee was required to increase the bond to the current amount of \$3,252,000. The Division reviews the bond once every five years or as necessary. The Applicant is not required to update the bond for the Permit Renewal.

Form of Bond

The bond held by the Division is a surety posted by the Travelers Casualty and Surety Company of America. The Travelers had an A. M. Best rating of A+ on December 31, 2008. [PH]

Determination of Bond Amount

The reclamation bond estimate for the Cottonwood / Wilberg Mine was updated during the 2007 midterm permit review, receiving final Division approval on December 7, 2007.

The Division only recalculates the bond every five years, escalating reclamation costs at each midterm permit review. This is done to minimize the possibility of not re-issuing a current permit due to bond procurement issues.

The reclamation bond estimate will be recalculated during the next midterm permit review in 2011.

The current reclamation bond amounts to \$3,252,000. [PH]

Terms and Conditions for Liability Insurance

The Permittee included replacement certificates of liability insurance for the four Utah coal mine operations that are owned by PacifiCorp (Des-Bee-Dove Mine, Deer Creek Mine, Cottonwood Mine, and Trail Mountain Mine). Associated Electric & Gas Insurance Services Ltd is the insurer and the policy period is from August 28, 2008 to August 28, 2009. The policy

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provides for personal injury and property damage protection from surface coal mining and reclamation operations including the use of explosives and damage from subsidence. [PH]

Findings:

The information provided in the application is adequate to meet the minimum regulatory requirements for this section.

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From:

"Oakley, Dennis" < Dennis.Oakley@PacifiCorp.com>

To:

"Jim Smith" <jimdsmith@utah.gov>

Date:

6/24/2009 8:14 AM

Subject:

FW: Cottonwood WRS Phase III Bond Release

Attachments: Affidavit of Publication.doc

FYI

Dennis Oakley

Senior Environmental Engineer I CPESC

[cid:413151314@24062009-3574]

15 North Main Street I P.O. Box 310 I Huntington, Utah 84528

Phone: 435.687.4825 | Mobile: 435.636.5053 | Fax: 435.687.2695 dennis.oakley@pacificorp.com<mailto:dennis.oakley@pacificorp.com>

The greatest mistake you can make in life is to be continually fearing you will make one.

- Elbert Hubbard-

From: Oakley, Dennis

Sent: Friday, July 18, 2008 1:53 PM To: Wayne Western; 'Jim Smith'

Cc: Fleck, Ken

Subject: Cottonwood WRS Phase III Bond Release

Jim/Wayne:

Attached is a scanned copy of the Affidavit of Publication for the Phase III bond release advertisement for the Cottonwood/Wilberg WRS. Please file this in your records.

Thank you,

Dennis Oakley CPESC Senior Environmental Engineer

[cid:407245019@18072008-130B]

15 North Main Street P.O. Box 310

Huntington, Utah 84528

Phone:

435.687.4825

Cell:

435.636.5053 435.687.2695

Fax: email:

dennis.oakley@pacificorp.com<mailto:dennis.oakley@pacificorp.com>

Even if you're on the right track, you'll get run over if you just sit there.

- Will Rogers -

Incoming 0/0/5/0019

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AFFIDAVIT OF PUBLICATION

STATE OF UTAH)

SS.

County of Emery,)

I, Richard Shaw, on oath, say that I am the Publisher of the Emery County Progress, a weekly newspaper of general circulation, published at Castle Dale, State and County aforesaid, and that a certain notice, a true copy of which is hereto attached, was published in the full issue of such newspaper for 4 (Four) consecutive issues, and that the first publication was on the 24th day of June, 2008 and that the last publication of such notice was in the issue of such newspaper dated the 15th day of July, 2008.

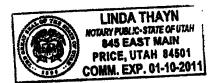
Richard Shaw - Publisher

Subscribed and sworn to before me this 15th day of July, 2008.

Linda Shayn

Notary Public My commission expires January 10, 2011 Residing at Price, Utah

Publication fee, \$381.44



COTTONWOOD MILBERG MINE PERMIT NO. C/015/0019 PERMIT RENEWAL: JULY 6, 2004

<u>APPLICATION FOR BOND RELEASE</u>

Pacificorp, by and through its wholly-plyned subsidiary. Energy West Mining Company ("Energy West") as mine operator, hereby submits an application for Phase II and III bond release of the Cottonwood Wilberg old waste rock site. This area consists of the settinem portion of lease 11, 37642 which is located on the east side of Highway 57 (Wilberg Hair) Road. The said area is located within Township 17 South, Range 7 Last Section 34, NET/4 SE1/4 and Section 35, E1/2 SW1/4, and to described as follows:

Beginning at a point 8 32°35'06" E/582 18 feet from the east 1/4 corner of Township 17 South, Range 7 East, Section 34, SLB Therice, 8 32 35 06 °E; 1296.31 feet; Therice, 8 32 35 08 W, 411.69 (set; Therice, N 48 03 42 °W, 656.18 feet;

Thence, N 46°38'41" W, 472.77 feet

Thence, N 38°57'15" W. 229.19 feet.

Thence, N 31°22'00" W. 90.38 feet Thence, S 72°32'03" E, 65.63 feet;

Thence, N 50°27'20° E, 295.51 feet; Thence, N 69°41'04' E, 398.55 feet, to the point of beginning. The southern area of lease U-37642 contains 18:45 acres, more.

The waste rock site area, adjacent to the Wilberg Haul Road and within the above description; contains 15:62 acres of disturbed area, 13.81 acres of which is being applied for release.

The waste rock sije was first constructed in 1983 as a containment area for mine refuse from the Wilberg and Des Boe Dove willnes. The site plan called for seven cells to be excavated. Assauch cell reached his capacity, they were reclaimed by track-filling and grading with stored soil material. Each cell was then revegetated with an approved seed mixture. Reclamation of the final cell was completed in 1992-1993.

A surety bond is posted with the Division of Oll, Gas and Mining for the Cottonwood/Wilberg Mine in the amount of \$3,252,000:00. No reduction in the band amount is being sought at this time. This notice is being published to comply with the Surface Mining Control and Reclamation Act of 1977, and State and Federal regulations promulgated pursuant to said Act.

Written comments may be submitted to: State of Utah, Department of Natural Resources, Division of Oil, Gas and Mining, 1594 West North Temple, suite 1210, Box 145801, Salt Lake City, Utah 84114-5801. Sald comments must be submitted within thirty (30) days from the date of the last publication of this notice.

Published in the Emery County Progress June 24, July 1, 8 and 15, 2008



State of Utah

Department of Natural Resources

MICHAEL R. STYLER Executive Director

Division of Oil, Gas & Mining

JOHN R. BAZA
Division Director

JON M. HUNTSMAN, JR. Governor

GARY R. HERBERT Lieutenant Governor

Representation	ves Present During the Inspection:	
BLM	Connie Leschin	
OGM	Jim Smith Environmental Scientist III	
OGM	April Abate Hydrologist	
OGM	Ingrid Wieser Environmental Scientist II	_
OGM	Pete Hess Environmental Scientist III	_
OGM	Joe Helfrich Environmental Scientist III	_
Company	Dennis Oakley Environmental Engineer	
Company	Guy Davis Environmental Scientist	_
BLM	Sue Wiler	
BLM	Mike Robinson	_
OGM	Priscilla Burton Environmental Scientist III	

Permit Number:	C0150019
Inspection Type:	BOND RELEASE
Inspection Date:	Wednesday, December 03, 2008
Start Date/Time:	12/3/2008 10:00:00 AM
End Date/Time:	12/3/2008 11:30:00 AM
Last Inspection:	

Inspection Report

Inspector: Jim Smith, Environmental Scientist III

Weather: Cold, clear

InspectionID Report Number: 1888

Types of Operations

Accepted by: jhelfric

2/23/2009

Permitee: PACIFICORP

Operator: ENERGY WEST MINING CO Site: COTTONWOOD/ WILBERG

Address: PO BOX 310, HUNTINGTON UT 84528

County: EMERY

Permit Type: PERMANENT COAL PROGRAM

Permit Status: ACTIVE

Cu	rra	nt	Δ	cre	20	100
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6,286.20	Total Permitted
62.24	Total Disturbed
	Phase I
	Phase II
	Phase III

Mineral Ownership

V	Federal	V	Underground
	State		Surface
	County		Loadout
✓	Fee		Processing
	Other		Reprocessing

Report summary and status for pending enforcement actions, permit conditions, Division Orders, and amendments:

This was a Phase II and III bond release inspection. PacifiCorp submitted an application for Phase I bond release on 13.81 reclaimed acres on December 17, 1998, The Division approved the Phase I bond release on July 22, 1999. The Permittee published notification of the application for Phase II and III bond release in the Emery County Progress on June 24, July 1, 8 and 15, 2008. An invitation letter was sent to parties of interest on November 19, 2008, and the onsite inspection was done on Wednesday December 3, 2008. The Phase II and III bond release area consists of the "Old" waste rock site, except for the 1.81 acre soil and rock storage area in the northwest corner of the disturbed area.

Inspector's Signature:	Date	Thursday, January 15, 2009

Permit Number: C0150019

Inspection Type: BOND RELEASE

Inspection Date: Wednesday, December 03, 2008

Page 2 of 3

REVIEW OF PERMIT, PERFORMANCE STANDARDS PERMIT CONDITION REQUIREMENTS

- 1. Substantiate the elements on this inspection by checking the appropriate performance standard.
 - a. For COMPLETE inspections provide narrative justification for any elements not fully inspected unless element is not appropriate to the site, in which case check Not Applicable.
 b. For PARTIAL inspections check only the elements evaluated.
- 2. Document any noncompliance situation by reference the NOV issued at the appropriate performance standard listed below.
- Reference any narratives written in conjunction with this inspection at the appropriate performace standard listed below.
 Provide a brief status report for all pending enforcement actions, permit conditions, Divison Orders, and amendments.

		Evaluated	Not Applicable	Comment	Enforcement
1.	Permits, Change, Transfer, Renewal, Sale		\checkmark		
2.	Signs and Markers	✓		V	
3.	Topsoil				
4.a	Hydrologic Balance: Diversions	✓		V	
4.b	Hydrologic Balance: Sediment Ponds and Impoundments	V		✓	
4.c	Hydrologic Balance: Other Sediment Control Measures	V		V	
4.d	Hydrologic Balance: Water Monitoring	✓		✓	
4.e	Hydrologic Balance: Effluent Limitations	✓		✓	
5.	Explosives		V		
6.	Disposal of Excess Spoil, Fills, Benches		V		
7.	Coal Mine Waste, Refuse Piles, Impoundments	✓		✓	
8.	Noncoal Waste	✓		✓	
9.	Protection of Fish, Wildlife and Related Environmental Issues		✓		
10.	Slides and Other Damage		✓		
11.	Contemporaneous Reclamation		✓		
12.	Backfilling And Grading	✓		✓	
13.	Revegetation	✓		V	
14.	Subsidence Control		✓		
15.	Cessation of Operations		✓		
16.	a Roads: Construction, Maintenance, Surfacing		✓		
16.	b Roads: Drainage Controls		✓		
17.	Other Transportation Facilities		✓		
18.	Support Facilities, Utility Installations		✓		
19.	AVS Check				
20.	Air Quality Permit		✓		
21.	Bonding and Insurance	✓		V	
22.	Other				

Permit Number: C0150019 Inspection Type: BOND RELEASE

Inspection Date: Wednesday, December 03, 2008

Page 3 of 3

2. Signs and Markers

All signs and markers were removed prior to the inspection.

4.a Hydrologic Balance: Diversions

There are no diversions.

4.b Hydrologic Balance: Sediment Ponds and Impoundments

There are no sedimentation ponds or impoundments.

4.c Hydrologic Balance: Other Sediment Control Measures

The last sections of silt fence were removed prior to the inspection.

4.d Hydrologic Balance: Water Monitoring

There has been no water monitoring at this site.

4.e Hydrologic Balance: Effluent Limitations

There has been no UPDES permit or other water monitoring at this site.

7. Coal Mine Waste, Refuse Piles, Impoundments

This is a reclaimed refuse pile.

8. Noncoal Waste

The area was clear of non-coal waste.

12. Backfilling And Grading

Backfilling and grading was completed in 1993, and Phase I bond release granted in 1999.

13. Revegetation

Vegetation appears adequate, but Mt. Nebo Scientific has prepared vegetation studies for 2005 and 206 that will determine if reclamation standards have been met.

21. Bonding and Insurance

The Permittee is not requeting a reduction of bond at this time because the bond also covers reclamation of the New Waste Rock Site on the west side of Highway 57 and the rock and soil storage area that abuts this reclaimed area.



United States Department of the Interior

of the Interior Jim

BUREAU OF LAND MANAGEMENT

Price Field Office 125 South 600 West Price, UT 84501 http://www.blm.gov/ut/price PECEIVED
JUL 14 2008
DIV. OF OIL, GAS & MINING

JUL 10 2008

In Reply Refer To: 3474 (UT-070)

Darin Haddock Utah Division of Oil Gas and Mining PO Box 145801 Salt Lake City, Utah 84114-5801

Dear Mr. Haddock:

Re: Phase II & III Bond Release Inspection

Energy West Company, a subsidiary of PacifiCorp, has completed Phase II & III of the approved reclamation plan for the Cottonwood/Wilberg old waste rock site. After the Phase II & III Bond Release Inspection that took place on July 2, 2008, the Bureau of Land Management (BLM) concurs with the reclamation that has taken place.

The reclamation at the old waste rock site meets Phase II & III bond release, and final reclamation will commence with removing all fencing and other equipment. The BLM will relinquish and readjust the acreage, which includes the remaining waste rock pile on right-of-way UTU-37642, after the Utah Division of Oil Gas and Mining releases the site.

If you have any questions concerning this matter, please contact Sue Wiler at (435)636-3651.

Sincerely

Michael Stiewig Acting Field Manager 0020



C/015/019 Incoming CC: Jim United States Department of the Interior

#3273

B

IN REPLY REFER TO:

OFFICE OF SURFACE MINING Reclamation and Enforcement P.O. Box 46667 Denver, Colorado 80201-6667

1 0 JUL 2009

John R. Baza, P.E., Director Department of Natural Resources Division of Oil, Gas, and Mining 1594 West North Temple Suite 1210, PO Box 145801 Salt Lake City, UT 84114-5801

RE: Cottonwood/Wilberg Mine, Utah Permit No. C/015/0019, Phase II & III Bond Release Application

Dear Mr. Baza:

This letter acknowledges the Office of Surface Mining's (OSM) receipt and review of the above Phase II and III Bond Release application. OSM received the Division of Oil, Gas and Mining's (DOGM) request for concurrence dated June 29, 2009, and its Decision Document (decision) sent via email on June 25, 2009. OSM's Denver Field Division (DFD) agrees with the findings in the decision and hereby provides OSM concurrence for this bond release action in accordance with 30 CFR 740.15 (d) (3), and 30 CFR 944.30, Article IX, of the State-Federal Cooperative Agreement.

PacifiCorp, through Energy West Mining, submitted an application for Phase II and III Bond Release on April 16th, 2008. The area covered by this bond release is the reclaimed Old Rock Waste Site. The application requested bond liability release for approximately 13.81 acres of land; however, no reduction in the amount of bond being held is requested (the bond is to remain at \$3,252,000.00).

The affidavit of publication (public notification) was provided to OSM by DOGM. The bond release inspection notification, DOGM's inspection findings for the bond release inspection and related correspondence are documented in the decision document. DOGM sent an invitation letter informing interested parties of the bond release inspection on November 19, 2008. Inadvertently, OSM was not notified of or invited to the inspection and therefore did not participate. Three attendees from the BLM and two representatives of the permittee accompanied six DOGM staff conducting the bond release inspection. DOGM received a concurrence letter from the BLM on July 14, 2008 (dated July 10, 2008).

OSM has reviewed DOGM's Decision Document and bond release inspection reports, as well as other pertinent documentation including the public notice, the applicant's April 2008 request and application for bond release, and additional photographs of the site taken July 2nd and December $3^{\bar{t}d}$, 2008.



JUL 15 2009

The DOGM inspection reports document the reclamation of the site. The DOGM finds, in its Decision Document, that PacifiCorp has completed Phase II and III reclamation for these areas as required by the Utah Coal Mining Rules. The BLM has concurred with this decision. OSM concurs with the findings in DOGM's Phase II and III bond release decision.

Thank you and your staff for coordinating this Federal lands bond release through the DFD. Please direct any questions concerning this action to Christine Belka, Environmental Protection Specialist, at cbelka@osmre.gov or (303) 293-5020.

Sincerely,

James F. Fulton, Chief Denver Field Division